



UNIVERSITY OF
CHEMISTRY AND TECHNOLOGY
PRAGUE

 **CorrSen**

CorrSen

user manual

iOS application

(version 1.2)

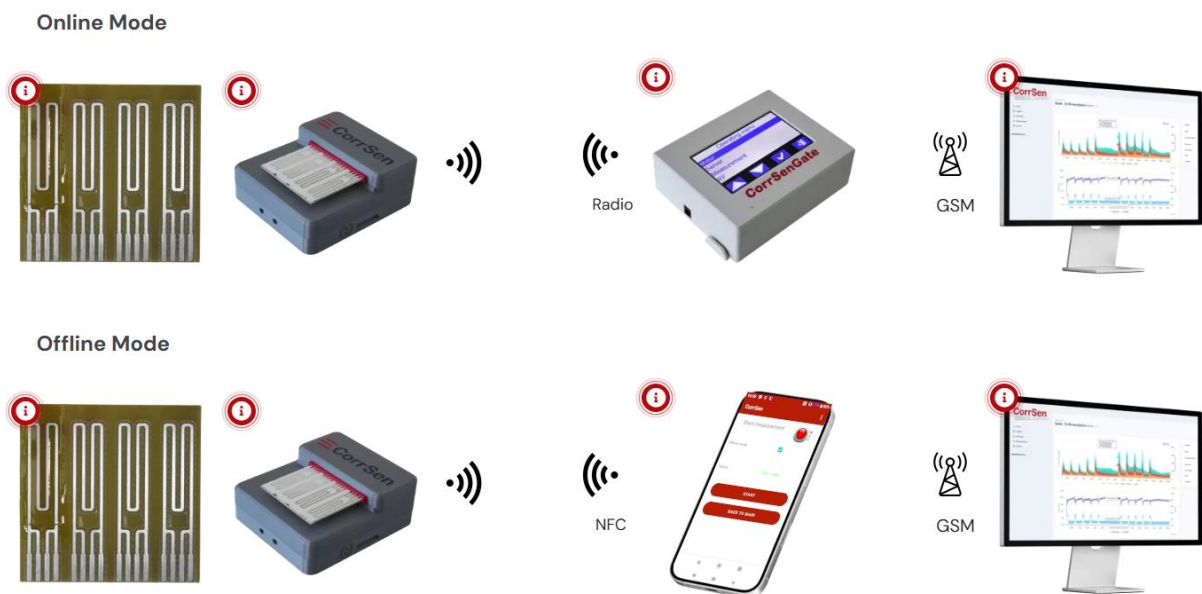
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1. CorrSen Mobile Application for iOS

The CorrSen mobile application is used for reading data from CorrSen loggers and configuring their functional parameters in situations where the logger cannot operate online (e.g., no mobile signal, or we prefer offline operation). Once the mobile phone is connected to the mobile network, the retrieved data can be sent to the server.

CorrSen **Monitoring Solution**

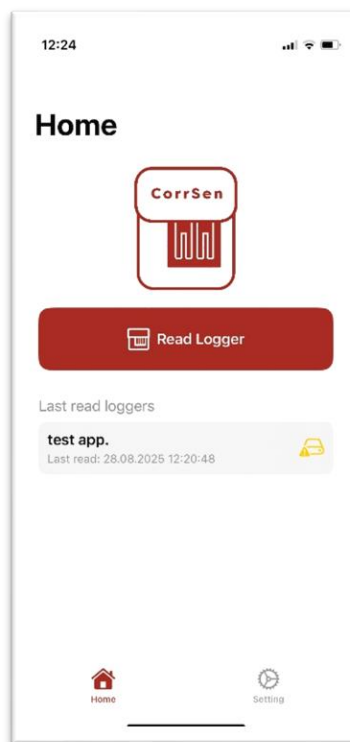


1.1. Application Installation

The CorrSen app can be downloaded and installed free of charge from the App Store. It is advisable to check the App Store from time to time for the latest version.

1.2. Starting the Application

Tap the CorrSen icon to launch the application and display the Home screen.



From the Home screen, you can view information about the latest reading sessions from assigned loggers (Last read loggers) or initiate communication with a logger (Read Logger). By tapping on items in Last read loggers, an information window is displayed with details of the latest reading sessions of assigned loggers. The content is identical to the Detail menu described below.

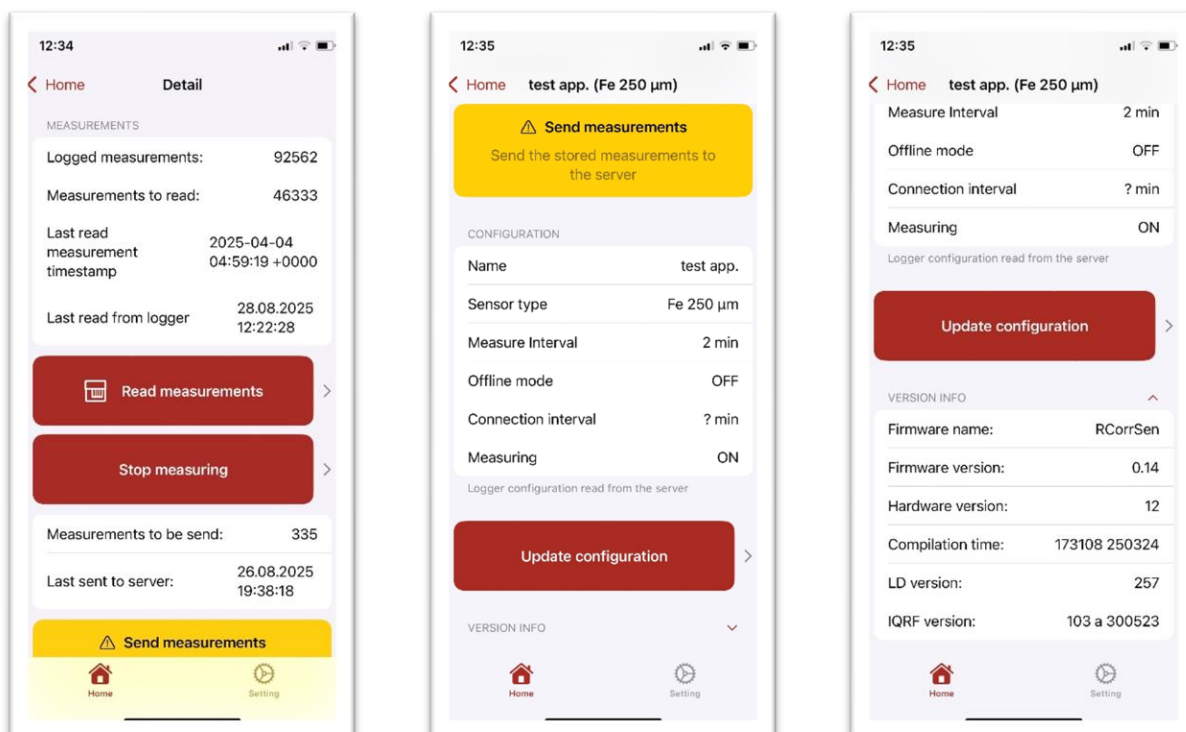
At the bottom of the screen, two icons are displayed (and also appear in other application windows) – **Home** for returning to the main screen and **Setting** for displaying and editing parameters.

To start communication, the mobile phone must be positioned correctly to connect to the logger via NFC. NFC works at a very short distance (typically a few centimeters), so creating a reliable connection is important for the application's operation. In most phones, the NFC antenna is located at the top back (typically near the camera lens). On the logger, the NFC antenna is located on the side of the enclosure and marked with an NFC symbol. All information about the NFC connection is displayed in the NFC window at the bottom third of the display



1.3. Detail Menu

Once the connection is established, the application displays the Detail window with current information from the connected logger, organized into three blocks – **Measurements** (information about measurements in the logger), **Configuration** (logger settings), and **Version** (software version information, expandable by tapping).



Parameter meanings:

Measurements block:

Logged measurements: total number of measurements stored in the logger

Measurements to read: number of measurements not yet read and transferred to the server; these are read when the "Read measurements" function is started

Last read measurement timestamp: date and time of the last recorded sample; this helps verify if all data has been uploaded to the server

Last read from logger: date and time of the last data reading from the logger

Measurements to be send: number of measurements read from the logger but not yet sent to the server; if nonzero, a yellow **Send measurements** button appears to allow transfer

Last send to server: date and time of the last data transfer to the server

Configuration block:

Name: current measurement name

Sensor type: type of measuring sensor

Measure interval: current measurement interval

Offline mode: on/off state of offline mode

Connection interval: interval for sending data to the gateway (not functional in offline mode)

Measuring: on/off state of data logging

Version Info Block:

Expandable block containing SW/FW version information of the logger SW and FW.

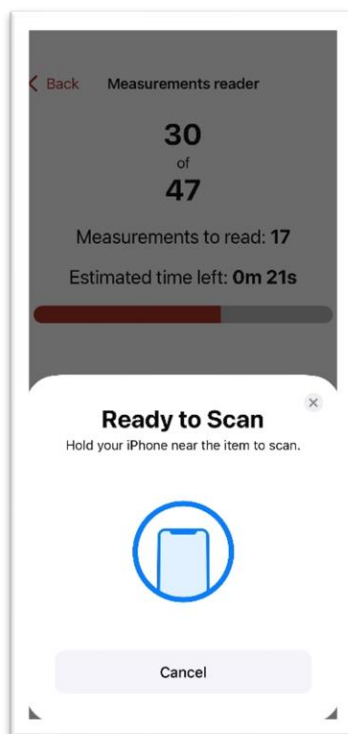
2. Data Reading and Logger Configuration Menu

The Detail menu includes three functional buttons – Read measurements, Start/Stop measuring, and Update configuration. If unsent measurements exist, a yellow Send measurements button is also displayed.

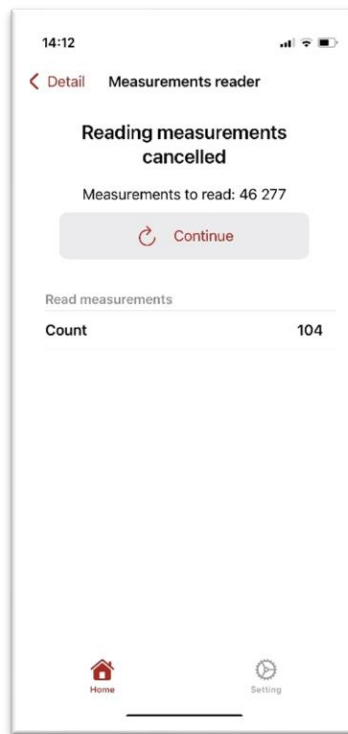
2.1. Read measurements

This function reads data recorded by the logger. The number of unread measurements is shown under "Measurements to read" in the Detail menu. Pressing Read measurements starts data transfer via NFC. If the phone is not near the logger, bring it closer until NFC communication is established.

During reading, the screen shows the number of measurements read, unread, and estimated time remaining. Periodically (about once per minute), NFC reinitializes, temporarily pausing data transfer and showing "Reinitiating NFC session" before resuming. Reading can be interrupted anytime with the Cancel button in the NFC communication window.



After completion (or interruption), the counts of read/unread measurements are displayed. You can return to the Detail menu with the Detail button or continue with Continue. If connected to mobile signal, the Send measurements button will appear to upload data to the server. Otherwise, data can be sent later when signal is available.

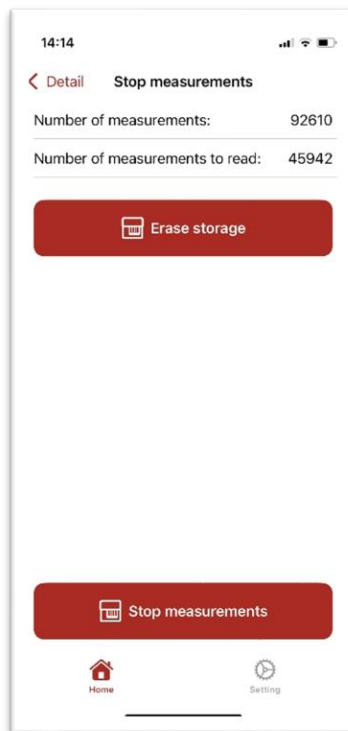


2.2. Start/Stop measurements

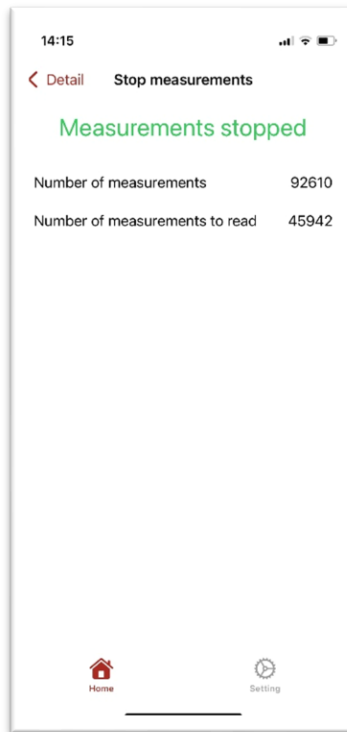
If the logger is actively measuring, this option allows temporary or permanent suspension. When the measurement is suspended, this option starts the measurement.

2.2.1. Stop measurements

When the logger is in active measurement mode, the **Stop measurements** function is available, allowing you to temporarily or permanently pause data measurement by the logger. Press the Stop measurements button to stop measurement. The logger must be connected via NFC signal



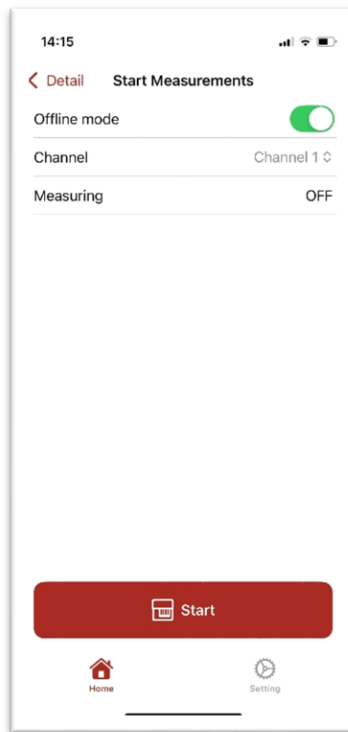
The execution of the function is confirmed on the application screen and the logger switches to idle mode, where data measurement is suspended. At the same time, we can use the **Erase storage** function to delete all measured data (Caution! Before deleting, it is necessary to read the data, if it is meaningful, to the server; the Erase storage function permanently deletes the data from the logger).



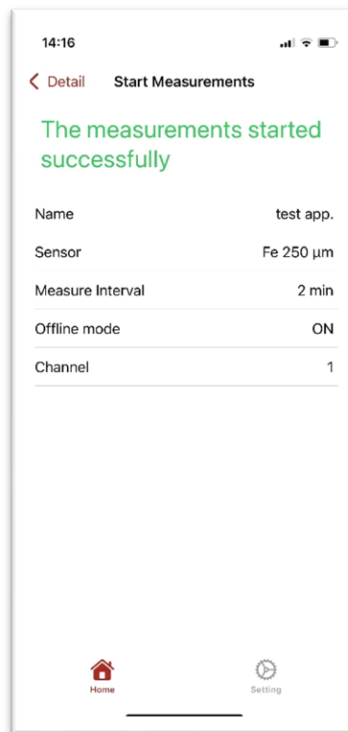
We can verify that the operation was performed correctly by returning to the home screen and reading the logger status – the *Measuring* item must be in the *off* state.

2.2.2. Start measurements

If the logger is in the measurement off state (*Measuring: off*), the **Start measurements** item is available, which allows you to turn the measurement back on. The appropriate measurement interval is also set according to the logger settings on the server. The logger must be connected via NFC signal.



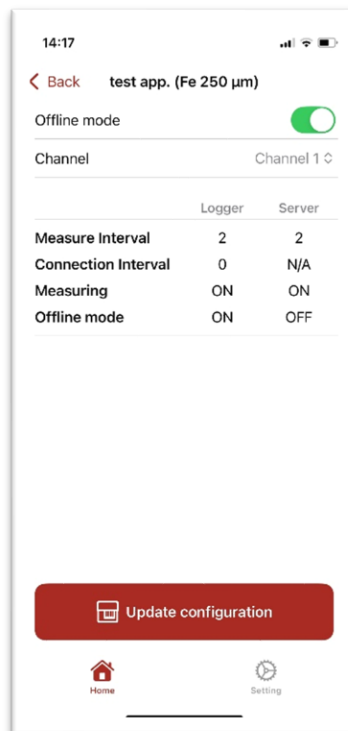
The execution of the function is confirmed on the application screen, the measurement parameters (interval, sensor type, etc.) are displayed, and the logger enters the measure state and begins measuring and storing data.



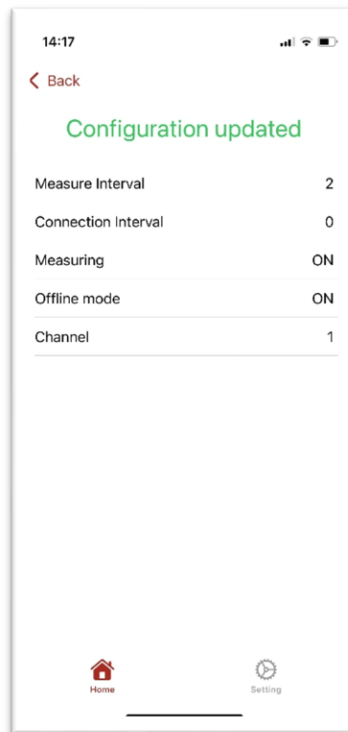
You can verify that the operation was performed correctly by returning to the home screen and reading the logger status – the *Measuring* item must be in the *on* state.

2.3. Update configuration

The **update configuration** function is used to set the logger's measurement parameters. Before using this function, the application must be launched with access to the server via a mobile signal in order to load the current values of the parameters being set. After launching the function, the values of the parameters being set are displayed in the logger and on the server. If they are different, pressing the **Update configuration** button sets the values from the server in the connected logger.



The execution of the function is confirmed on the application screen and the newly set parameters are displayed.



3. Settings Menu

Accessible at the bottom right of the application via the **Setting** button. Logger connection is not required. In the current version, only the server address can be edited. If this is missing or incorrect, server communication (including data upload) will not work. The standard server address is monitoring.corrсен.com. The address can be changed by tapping and editing the field. Editing ends by clicking outside the text box.

